

IN THE DRAWINGS:

Please approve the drawing change as shown in red on the attached marked-up copy of Fig. 4. A separate Letter to the Draftsman indicating the same proposed drawing change is also enclosed.

REMARKS

As a preliminary matter, Applicant thanks the Examiner for the courtesy shown to Applicant's representative, Josh C. Snider, in the telephone interview conducted on May 11, 2005. Claim 1 of the present Application was discussed with respect to the outstanding Section 112 rejection, and with respect to the outstanding Section 102 rejection based on Chen (U.S. 5,846,648). Agreement was not reached as to the claims in their present form.

The Examiner did indicate though, that the rejection based on Chen might be overcome by further amending claim 1 to more closely follow the arguments previously presented by Applicant, namely, that the recited physical separation between nucleation sites is between adjacent ones of the nucleation sites. Although Applicant again submitted that such language is redundant with respect to the claim as a whole, agreement was reached that this additional clarifying language in the claim will represent the arguments previously presented, while avoiding the teachings of Chen that require contiguous sites. Accordingly, claim 1 has been amended herein according to the proposed language discussed in the telephone interview.

Claim 1 has been further amended herein to remove the subject matter at issue that was the basis for the Examiner's Section 112 rejection, and add a new dependent claim (18) to recite the same features that are now removed from claim 1, but with some minor amendments. Specifically, the removed language from claim 1 that recited "each of the crystal grains containing one of the metallic nucleation sites inside" now reads in dependent claim 18 as "each of said crystal grains corresponds to a respective one of said metallic

nucleation sites.” Applicant submits that new claim 18 is even broader than claim 1 as last amended in (Amendment C), but still contains within its scope of protection the embodiment where each crystal grain contains one of the metallic nucleation sites inside.

As discussed in the telephone interview, Fig. 10 of the present Application (and its accompanying description) illustrates a sectional view of a polycrystalline film having individual nucleation sites 27 first formed on a substrate 21, with individual crystal grains 29 (separated by boundaries 31) each respectively formed over the sites 27. Fig. 10 clearly illustrates that at least a significant portion of the sites 27 are inside their respective crystal grain 29. The previously submitted claim language from claim 1 was therefore fully enabled by at least Fig. 10 and its accompanying description, and therefore this same embodiment is still covered by the broader language of new claim 18 that will include, but not require, the nucleation sites to be inside the crystal grains, entirely or partially.

As a second preliminary matter, Applicant wishes to note for the record that Amendment C, filed October 4, 2004, was inadvertently labeled “Amendment B” by mistake, and Applicant incorporates by reference herein those arguments previously advanced in the previously submitted Amendments A-C. Applicant respectfully requests that the Examiner reconsider those arguments in light of the amendments to independent claim 1 discussed above.

As a third preliminary matter, the drawings stand objected to for failing to comply with 37 C.F.R. 1.84(p)(4). In response, Fig. 4, and its accompanying description, have been amended to clearly designate the Co atoms by the reference character “31_a,” and

not as “31.” A separate Letter to the Draftsman indicating the same proposed changes marked in red is also included herewith, along with a Submission of Formal Drawings for replacement Fig. 4. Approval of the proposed changes to Fig. 4, and entry of the formal replacement drawing, are respectfully requested.

Claims 1-6 stand rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. In response, Applicant has amended claim 1 as discussed above to remove the language at issue, and submits that this rejection is now moot in light of this amendment. Applicant has further added new claim 18 to depend from claim 1 and recite similar subject matter. Applicant submits though, that the claim language from new claim 18 is fully enabled for at least the reasons also discussed above.

Additionally, in the interests of expediting prosecution, Applicant has further amended claim 1, as discussed above, to more clearly distinguish the present invention from Chen by reciting that the physical separation of the nucleation sites of the present invention is from adjacent ones of the nucleation sites. Although Applicant again maintains that this clarifying language to claim 1 is redundant, it is sufficient by itself to overcome any of the Examiner’s interpretations on the record of the previously cited Chen reference.

Furthermore, because this clarifying language is redundant, Applicant submits that no new matter has been introduced, nor have any new issues been raised, by this amendment. Claim 1 originally recited that the nucleation sites of the present invention were physically separated. The Examiner, however, more broadly asserted that this limitation is met if any two nucleation sites within the layer – even at opposite ends of the layer – are

physically separated. This interpretation of the “physically separated” features of claim 1, did not consider the claim as a whole, in light of the present Specification.

According to the Examiner’s broader interpretation, the limitation “physically separated” is rendered essentially meaningless, because the claim would have the same meaning without the limitation as the Examiner gives the claim with the limitation. Although the Examiner is expected to give all claim terms their broadest reasonable meaning, the Examiner is still required to do so according to the teachings of the Specification. Applicant submits that the Examiner’s broader interpretation was not consistent with the present Specification, and was particularly not consistent with the teachings of Chen that requires all of its nucleation sites to be touching (“contiguous”). For at least these reasons therefore, Applicant submits that the rejection based on Chen has been overcome at least in light of the amendments to claim 1 herein, but that claim 1 has not been narrowed by these amendments.

Accordingly, for all of the foregoing reasons, Applicant submits that this Application, including claims 1-6 and 18, is in condition for allowance, which is respectfully requested. The Examiner is invited to contact the undersigned attorney if an interview would expedite prosecution.

Respectfully submitted,

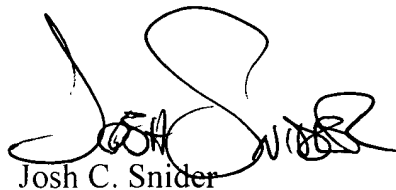
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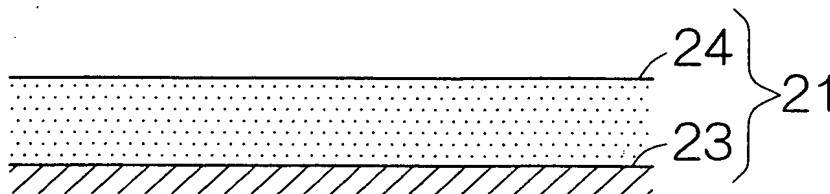


FIG.3

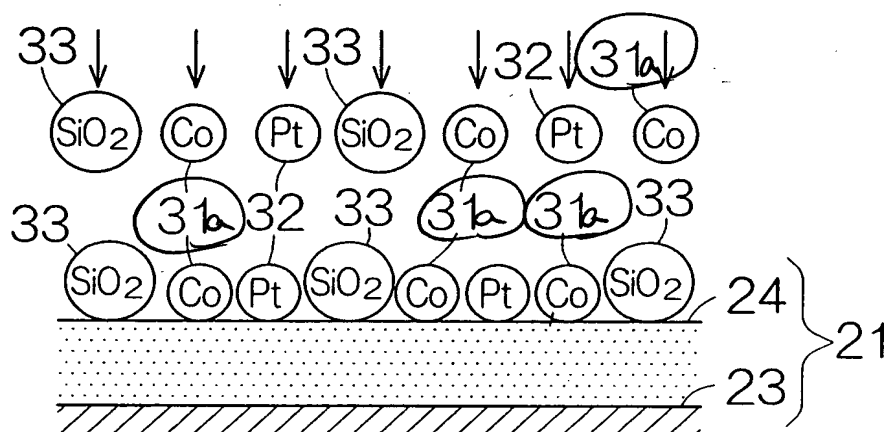


FIG.4

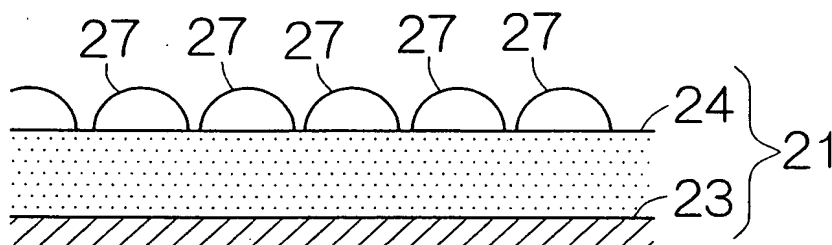


FIG.5